## ABSTRACT OF THE DISCLOSURE

A packet relay apparatus is disposed that relays packets between an inside node and an outside IP network. A class processing unit classifies send packets to be relayed to the IP network and allocates different virtual IP addresses thereto. A send packet relay unit translates source addresses of the send packets to be relayed to the IP network into virtual IP addresses on a class by class basis, to establish classified IP communication paths. For reply packets from the IP network passing through communication paths on a class by class basis, a reply packet relay unit inversely translates destination virtual IP addresses into original addresses by reference to the results of address translation effected by the send packet relay unit.